Safety Data Sheet according to Regulation (EC) 'No. 2015/830

SECTION 1: Identification of the Substance/Mixture and the Company/Undertaking

1.1 Product Identifier

Product Name: Flowchem VE GL(Flex)-Resin

FLOWCHEM VE GL(FLEX)-RESIN

Revision Date: 26/06/2020

Supersedes Date: 21/09/2018

1.2 Relevant identified uses of the substance or mixture and uses advised against

Washing and Cleaning Products (including solvent based products). Manual activities involving hand contact. For use by appropriately trained applicators. Advised against: Home DIY applications, because of the health hazards and training required.

1.3 Details of the supplier of the safety data sheet

Supplier:

Flowcrete UK Ltd.
The Flooring Technology Centre
Booth Lane
Moston, Sandbach, Cheshire. UK
CW11 3QF

Tel: +44 (0)1270 753000
Fax: +44 (0)1270 753333
ehs.uk@flowcrete.com
http://www.flowcrete.co.uk

Datasheet Produced by: ehs.uk@flowcrete.com

1.4 Emergency telephone number:

CHEMTREC +001 703 5273887 (Outside US)
CHEMTREC 1-800-424-9300 (Inside US)

SECTION 2: Hazard Identification

2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

HAZARD STATEMENTS

Flammable Liquid, category 3	H226
Skin Irritation, category 2	H315
Eye Irritation, category 2	H319
Acute Toxicity, Inhalation, category 4	H332
STOT, single exposure, category 3, RTI	H335

Reproductive Toxicity, category 2	H361d
STOT, repeated exposure, category 1	H372
Hazardous to the aquatic environment, Chronic, category 3	H412

2.2 Label elements

Symbol(s) of Product

Signal Word

Danger

Named Chemicals on Label

Styrene

HAZARD STATEMENTS

Flammable Liquid, category 3	H226	Flammable liquid and vapour.
Skin Irritation, category 2	H315	Causes skin irritation.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
Reproductive Toxicity, category 2	H361d	Suspected of damaging the unborn child.
STOT, repeated exposure, category 1	H372	Causes damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment, Chronic, category 3	H412	Harmful to aquatic life with long lasting effects.

PRECAUTION PHRASES

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/ face protection.
P284	Wear respiratory protection.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P308+313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P332+313	If skin irritation occurs: Get medical advice/attention.
P403+233	Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

Contains PBT/vPvB substances >= 0.1% assessed in accordance with REACH Annex XIII.

SECTION 3: Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

CAS-No.	EINEC No.	Name According to EEC	%
100-42-5	202-851-5	Styrene	50 - <75
25973-55-1	204-469-4	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol	0.1 - <1.0

CAS-No.	REACH Reg No.	CLP Symbols	CLP Hazard Statements	M-Factors
100-42-5	01-2119457861-32	GHS02-GHS07-GHS08	H226-304-315-319-332-335-361d-372	
25973-55-1		GHS08	H373-413	

Additional Information: The text for CLP Hazard Statements shown above (if any) is given in Section 16.

SECTION 4: First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice. Show this safety data sheet to the doctor in attendance. Remove contaminated clothing and shoes.
AFTER INHALATION: Move to fresh air. Remove person to fresh air. If signs/symptoms continue, get medical attention.
AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Do NOT use solvents or thinners.
AFTER EYE CONTACT: Keep eye wide open while rinsing. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.
AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. If symptoms persist, call a physician or Poison Control Centre immediately. Give small amounts of water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

No Information

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Fire-fighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam, Water Fog

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above. Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Explosive reaction may occur on heating or burning. In use, may form flammable/explosive vapour-air mixture.

5.3 Advice for firefighters

Keep containers and surroundings cool with water spray. Fire will produce dense black smoke containing hazardous combustion products (see section 10). Flash back possible over considerable distance. In the event of fire, wear self-contained breathing apparatus. Do not use a solid water stream as it may scatter and spread fire. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged

into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Remove all sources of ignition.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Ventilate the area. Refer to protective measures listed in sections 7 and 8.

6.4 Reference to other sections

FURTHER INSTRUCTIONS: Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Vapours may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Electrical equipment should be protected to the appropriate standard. Preparation may charge electrostatically**:** always use earthing leads when transferring from one container to another. Use only in area provided with appropriate exhaust ventilation. Provide sufficient air exchange and/or exhaust in work rooms. As a rule, at least 10 air changes per hour are recommended at the workplace. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Wear personal protective equipment. Do not breathe vapours or spray mist. Use only explosion-proof equipment. Keep away from sources of ignition - No smoking.
Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Keep away from food, drink and animal feeding stuffs. When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat. Heat, flames and sparks. Direct sources of heat.
STORAGE CONDITIONS: Store in original container. Store at room temperature in the original container. Keep locked up or in an area accessible only to qualified or authorised persons. Keep container closed when not in use. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

7.3 Specific end use(s)

No specific advice for **end use** available.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (UK WELS)

Name	CAS-No.	LTEL ppm	STEL ppm	STEL mg/m3	LTEL mg/m3
Styrene	100-42-5	100	250	1080	430
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol	25973-55-1				

Name	CAS-No.	OEL Note
Styrene	100-42-5	
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol	25973-55-1	

FURTHER ADVICE: Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation.

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: Preferably a compressed airline breathing apparatus. In case of insufficient ventilation wear suitable respiratory equipment. Respirator with a vapor filter.

EYE PROTECTION: Safety goggles. Tightly fitting safety goggles. Safety glasses with side-shields conforming to EN 166.

HAND PROTECTION: Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Rubber or plastic gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Long sleeved clothing. Remove and wash contaminated clothing before re-use. Protective suit. Remove contaminated clothing and protective equipment before entering eating areas.

OTHER PROTECTIVE EQUIPMENT: No Information

ENGINEERING CONTROLS: As a rule, at least 10 air changes per hour are recommended at the workplace. Avoid contact with skin, eyes and clothing. Maintain air concentrations below occupational exposure standards. Ensure adequate ventilation, especially in confined areas.

Chemical Name:
Styrene

EC No.: 202-851-5

CAS-No.: 100-42-5

DNELs - Derived no effect level

	Workers				Consumers			
Route of Exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							
Inhalation	306 mg/m³	289 mg/m³		85 mg/m³				
Dermal				406 mg/kg bw/day				

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	0.028 mg/L
Fresh water sediments	0.614 mg/kg
Marine water	0.014 mg/L
Marine sediments	0.307 mg/kg
Food chain	None
Microorganisms in sewage treatment	5 mg/L soil dw
soil (agricultural)	0.2 mg/kg
Air	None

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Various Colours
Physical State	Liquid
Odor	Not determined
Odor threshold	Not determined

pH	Not determined
Melting point / freezing point (°C)	Not determined
Boiling point/range (°C)	145 - N.D.
Flash Point, (°C)	~31
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	Not determined
Vapour Pressure	Not determined
Vapour density	Not determined
Relative density	1,04 g/ml (20°C)
Solubility in / Miscibility with water	Not determined
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (°C)	Not determined
Decomposition temperature (°C)	Not determined
Viscosity	Not determined
Explosive properties	Not determined
Oxidising properties	Not determined

9.2 Other information

VOC Content g/l: <60

This is a calculated maximum VOC content for the mixed ready to use product (to Directive 2004/42/EC).

SECTION 10: Stability and Reactivity

10.1 Reactivity
No **reactivity** hazards known under normal storage and use conditions.

10.2 Chemical stability
Stable under recommended storage conditions. Risk of ignition.

10.3 Possibility of hazardous reactions
Polymerisation occurs when exposed to white light, ultraviolet light or heat.

10.4 Conditions to avoid
Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat. Heat, flames and sparks. Direct sources of heat.

10.5 Incompatible materials
Oxidizing agents. Strong oxidizing agents. Amines. Reducing agents. Heavy metal salts. Avoid radical-forming starting agents, peroxides and reactive metals.

10.6 Hazardous decomposition products
In case of fire **hazardous decomposition products** may be produced such as**:** Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). No dangerous reaction known under conditions of normal use.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50: No Information

Inhalation LC50: No Information

Irritation: No information available.

Corrosivity: No information available.

Sensitization: No information available.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Name According to EEC	Oral LD50	Dermal LD50	Vapor LC50	Gas LC50	Dust/Mist LC50
100-42-5	Styrene	5000 mg/kg (rat)	2001 mg/kg (rat)	12 mg/l (rat)	2770 ppm	1.5 mg/l (rat)
25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol	> 2001 mg/kg (rat)	> 2001 mg/kg (rabbit)		0.000	> 400 mg/l (rat)

Additional Information:

In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

SECTION 12: Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia): No information

IC50 72hr (Algae): No information

LC50 96hr (fish): No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB assessment: Contains PBT/vPvB substances >= 0.1% assessed in accordance with REACH Annex XIII.

12.6 Other adverse effects: No information

CAS-No.	Name According to EEC	EC50 48hr	IC50 72hr	LC50 96hr
100-42-5	Styrene	4.7 mg/l	4.8 mg/l	4.02 mg/l
25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol	> 100 mg/l	> 100 mg/l	> 100 mg/l

SECTION 13: Disposal Considerations

13.1 **WASTE TREATMENT METHODS:** Do not burn, or use a cutting torch on, the empty drum. If recycling is not practicable, dispose of in compliance with local regulations. Container hazardous when empty. Empty containers should be taken to an approved waste handling site for recycling or disposal.

European Waste Code: 080111*
Packaging Waste Code: 150110

SECTION 14: Transport Information

14.1 UN number UN1263
14.2 UN proper shipping name Paint
Technical name Not applicable
14.3 Transport hazard class(es) 3
Subsidiary shipping hazard Not applicable
14.4 Packing group III
14.5 Environmental hazards Not applicable
14.6 Special precautions for user Not applicable
EmS-No.: Not applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code Not applicable

SECTION 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation for the substance or mixture:

National Regulations:

Denmark Product Registration Number: Not available
Danish MAL Code: Not available
Danish MAL Code - Mixture: Not available
Sweden Product Registration Number: Not available
Norway Product Registration Number: Not available
Germany WGK Class: Not available

Covered by Directive 2012/18/EC (Seveso III): Not applicable
Restrictions to product or to substances according to Annex XVII, Regulation (CE) 1907/2006: Not applicable

Annex XIV - Authorisation List:

CAS-No.	Name According to EEC
Not Applicable	

SVHC - Substances of very high concern (Candidate List):

CAS-No.	Name According to EEC
25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other Information

Text for CLP Hazard Statements shown in Section 3 describing each ingredient:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H413	May cause long lasting harmful effects to aquatic life.

Reasons for revision

Substance Hazard Threshold % Changed
Substance and/or Product Properties Changed in Section(s):
08 - Exposure Controls/Personal Protection
11 - Toxicological Information
12 - Ecological Information
15 - Regulatory Information
Revision Statement(s) Changed

This Safety Data Sheet (SDS) has been revised to meet the new EU CLP requirements. There have been both formatting and content changes based on the CLP classification (if applicable), please review each section of the SDS for specific changes.

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark;
European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;
European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP);
EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

Acronym & Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union

US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m3	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container
RTI	Respiratory Tract Irritation
NE	Narcotic Effects

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.